

Date: Monday, 28/04/2008 8:13:40 AM
 User: Julie Lecocq

Process Sheet

Customer :	CU-DAR001 Dart Helicopters Services	Drawing Name :	AFT CROSSTUBE
Job Number :	38819		
Estimate Number :	10377		
P.O. Number :		Part Number :	D2890
This Issue :	28/04/2008	S.O. No. :	
Prsht Rev. :	NC	Drawing Number :	D2890 REV B
First Issue :	/ /	Project Number :	N/A
Previous Run :	38818	Drawing Revision :	B
	Type :	Material :	
	PURCHASED PARTS	Due Date :	30/05/2008
Written By :		Qty:	1 Um: Each
Checked & Approved By :	<u>JL 08.4.28</u>		
Comment :	Est. D 05.03.21 Removed Bending procedures KJ/JLM		

Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D6008180	Crosstube Extrusion
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Comment: Qty.: 1.0000 Each(s)/Unit Total: 1.0000 Each(s)

Pick:

Qty	Part #	Description	Batch
1	D6008-180	Crosstube extrusion	B34688

EL 8-4-29

2.0	BENDING	BENDING MACHINE - SKIDTUBES
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**Comment:** BENDING MACHINE

1-Bend D2890 as per Dwg D2890 and Folio FT002

EL 8-4-29

3.0	QC6	DIMENSIONAL CHECK
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**Comment:** DIMENSIONAL CHECK

JP 08.04.29

4.0	SKIDTUBES 1	SKIDTUBES RESOURCE 1
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**Comment:** LANDING GEAR RESOURCE 1

1-Deburr and Polish

5.0	HAND FINISHING1	HAND FINISHING RESOURCE #1
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**Comment:** HAND FINISHING RESOURCE #1




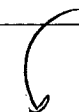
Chemical Conversion Coat as per QSI 005 4.1

N/A USED ON B 38619

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D2890 PAR #: N/A Fault Category: Pod / R-tube NCR: (Yes) No DQA: (D) Date: 08/05/01
 QA: N/C Closed: (D) Date: 09/05/02

NCR: 38819		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08.04.25	2	Tube overbent, widths are narrow. REF Dim sheet.	 08.04.25 JL QS/042	Tube acceptable	EL 8-4-30	 08/04/30	 08.04.25 JL QS/042	 08/04/30

NOTE: Date & initial all entries

Date: Monday, 28/04/2008 8:13:40 AM
User: Julie Lecocq

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT CROSSTUBE

Job Number: 38819

Part Number: D2890

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

NA USED ON B 38619

7.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: cut to 107/B# 38619

EL 8-4-29

8.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

08/05/01 AJ

Job Completion



MF 08-04-30

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

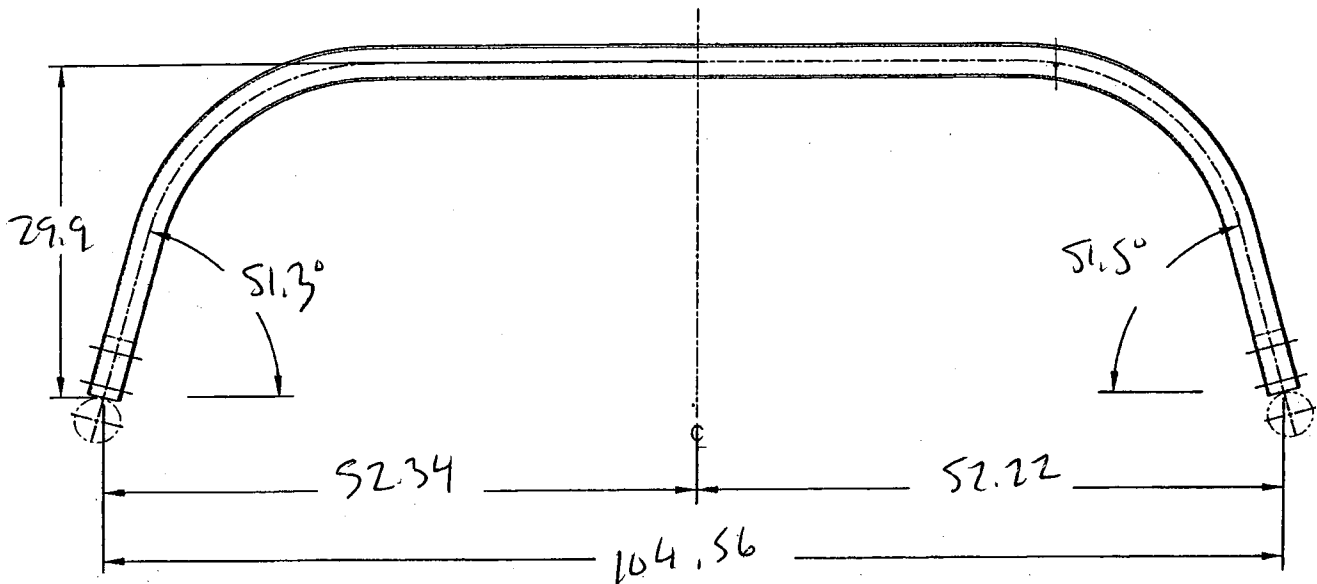
QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	38819
Description: Crosstube Aft		Part Number:	D2890
Inspection Dwg: D2890		Rev: B	Page 1 of 1

Required Dimension	Min	Max
Height	49.875	50.125
1/2 Span	69.275	69.525
Angle	49	52
Total Span	138.55	139.05



Comments
Tube OK

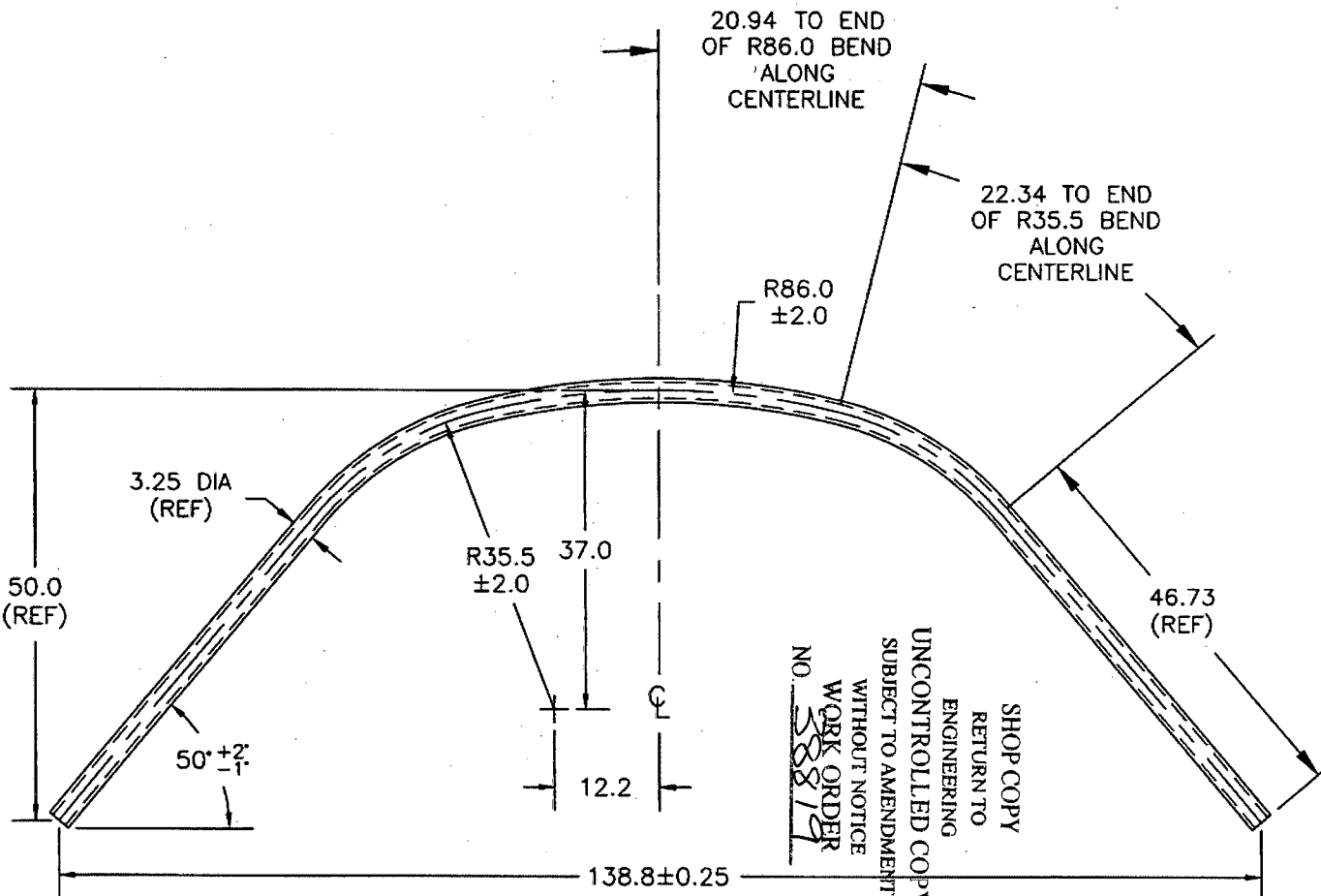
QC15 Inspection	OK
Date	06.04.25

Rev	Date	Change	Revised by	Approved
A	07.02.06	New Issue	KJ/JM	[Signature]



RELEASED
02.10.28

DESIGN		DRAWN BY		DART AEROSPACE LTD	
CHECKED		APPROVED		DRAWING NO.	
02.10.18		02.10.18		D2890	
DATE		TITLE		SHEET 1 OF 1	
02.10.18		AFT CROSS TUBE		SCALE	
A		99.05.21		NEW ISSUE	
B		02.10.18		ADD TANGENT LENGTHS; CHANGE NOTES	



NOTES

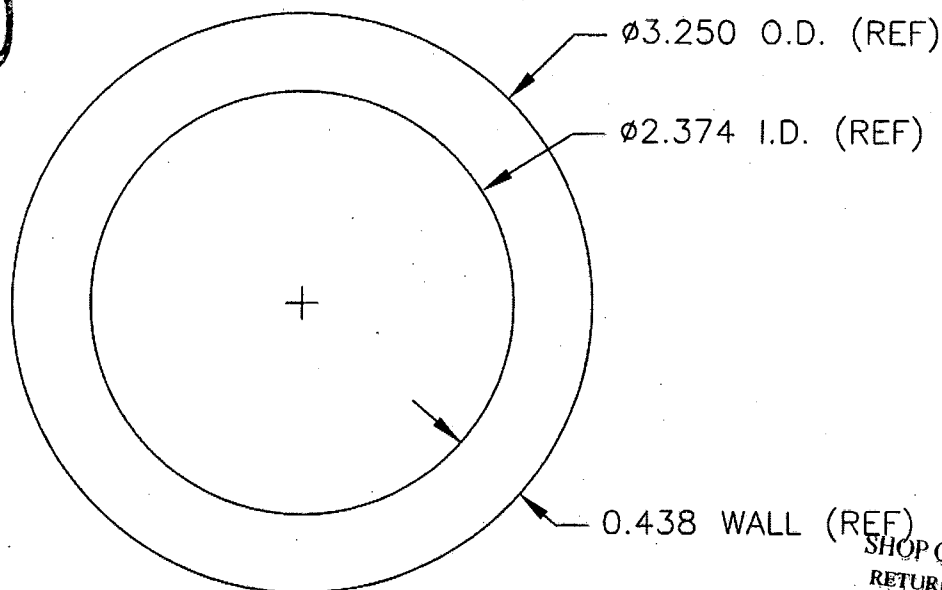
- 1) MATERIAL: MANUFACTURE FROM D6008-180 ($\phi 3.25$ OD x 0.438 WALL)
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) PART IS SYMMETRIC ABOUT CENTERLINE
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) BEND PROGRESSIVELY WITH MINIMUM OF 3 PASSES
- 6) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.



DESIGN <i>CP</i>	DRAWN BY <i>CP</i>	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D6008	REV. A SHEET 1 OF 1
DATE 00.11.17		TITLE CROSSTUBE MATERIAL	SCALE 1:1
A	00.11.17	NEW ISSUE	

SPECIFICATION CONTROL DRAWING

RELEASED
00.11.24 *[Signature]*



NOTES

- 1) D6008-XXX CROSSTUBE
LENGTH

WHERE XXX IS LENGTH IN INCHES
EG. 180" LONG TUBE: D6008-180

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 38819

- 2) MATERIAL: 3.250 OD x 0.438 WALL 7075-T6/T6511 (WW-T-700/7 OR QQ-A-225/9 OR QQ-A-200/11) SEAMLESS ALUMINUM TUBE.
MINIMUM ULTIMATE TENSILE STRENGTH = 77 ksi
MINIMUM YIELD TENSILE STRENGTH = 66 ksi
- 3) TOLERANCES ARE PER ASTM B210 AS FOLLOWS:
O.D.: ± 0.008 MEAN (± 0.016 INCLUDING OVALITY)
WALL: ± 0.020 MEAN (± 0.044 INCLUDING ECCENTRICITY)
LENGTH: XXX $+0.125/-0.000$
STRAIGHTNESS: 0.010" DEVIATION / 12" LENGTH
- 4) EXTREME CARE MUST BE TAKEN TO PROTECT THE OUTSIDE SURFACE OF THE TUBE. THE OUTSIDE SURFACE MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS. DEFECTS UP TO 0.005" MAY BE BLENDED OUT LONGITUDINALLY. CIRCUMFERENTIAL GRIND MARKS ARE UNACCEPTABLE.
- 5) CHEMICAL CONVERSION COAT PER DART QSI 005 4.1

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